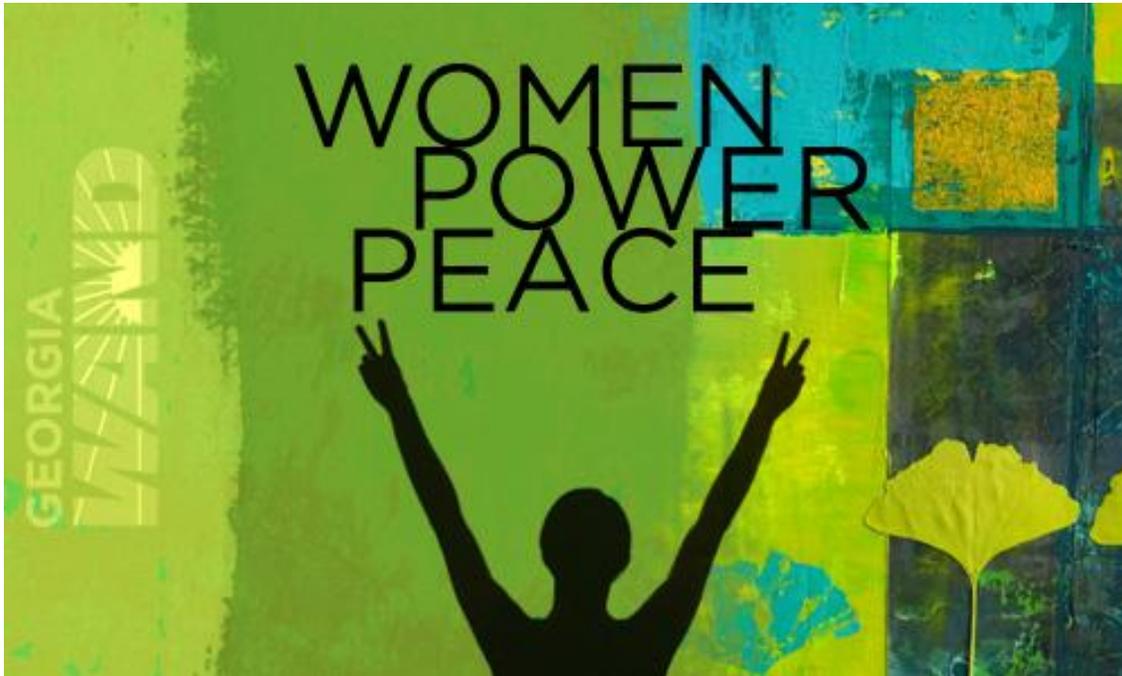


Carrying the Cumulative Burden: Nuclear Waste as if People Mattered



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About Georgia Women's Action for New Directions

Our Mission:

Empower women (*and men*) to act politically to reduce violence and militarism, and redirect excessive military resources toward unmet human and environmental needs.

As a nonpartisan, issue oriented organization recently celebrating its 25th year, WAND has evolved from our Cold War moniker of Women's Action for Nuclear Disarmament to our modern era calling as Women's Action for New Directions.

As Georgia WAND we divide our work into three focus areas; Peace in action, Environmental Justice, and political empowerment. We strive for peacemaking as a key tool in meeting our mission. Georgia WAND works to move toward a more progressive world free of nuclear weapons and nuclear contamination. Georgia WAND has always maintained its founding mission of nuclear disarmament and realizes that there many steps to take and avenues available to us to get to that end.

How We Carry Out Our Mission in Brief

With a professional staff of four, Georgia Women's Action for New Directions (WAND) is an independent grassroots, woman-led, community-based organization that seeks to direct women's voices into a powerful movement for change. Georgia WAND has a diverse state and regional membership; weekly communications and an "alerts" network.

Georgia WAND's entire program focus is devoted to progressive social change. The Georgia chapter is recognized as a bridge-building organization and a key coalition partner of the progressive community in Atlanta and the Southeast. Our chapter is well-positioned because of our coalition-building in Georgia's political epicenter, which has the largest concentration of progressive activists and voters in the southeast.

We have strong alliances with, and the respect of, civil rights leaders, labor leaders, students, people of faith, health advocates, environmental justice advocates, and women's organizations. We have a diverse board of directors, an accomplished and dedicated advisory board, and an active supportive base of over 2,500. Our collaborative programs are designed for sustainable change, capacity building in communities and engagement in co-designed initiatives. Georgia WAND's outreach efforts cross class, cultural, and racial boundaries.

Enhancing our organization's outreach impact we maintain a membership and Board presence with the Alliance for Nuclear Accountability (ANA) a national organization which is a 36 organization collaborative, with a network of over 3,500 people, with whom we share information weekly on issues such as nuclear waste and proliferation.

Georgia WAND monitors activities and policy decisions that affect the Savannah River Site (SRS) and nuclear power plants. We translate technical information about nuclear waste, its effects on national security, and its environmental impacts into terms that are meaningful to our members and to the communities near nuclear facilities.

As a compliment to our environmental justice work, we maintain working relations with our peace and justice, human rights and civil rights, and more traditional environmental community partners. Please visit our website at www.gawand.org for more details, or feel free to call us with questions at 404.524.5999.

“No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make safe and which remain an incalculable danger to the whole of creation for historical or even geological ages. To do such a thing is a transgression against life itself, a transgression infinitely more serious than any crime perpetrated by man. The idea that a civilization could sustain itself on such a transgression is an ethical, spiritual, and metaphysical monstrosity. It means conducting the economical affairs of man as if people did not matter at all.”

E.F. Schumacher

Small is Beautiful: Economics as if People Mattered

Q. Who Carries the Cumulative Health and Environmental Burden of Nuclear Waste?

A. American People Living Near Nuclear Waste Producers.

Health –

In his *Open Letter of Concern* dated May 11, 1999, Dr. John Gofman, a medical doctor, atomic scientist, and the first director and founder of the biomedical division at Lawrence Livermore Laboratory, who led the “Plutonium Group” that managed to isolate the first milligram of plutonium from irradiated uranium stated, “By any reasonable standard of biomedical proof, there is no safe dose, which means that just one decaying radioactive atom can produce permanent mutation in a cell’s genetic molecules.”

Though we work with and know a number of people who simply want to know, who simply want someone to answer the questions; ‘Am I dying because of radioactive contamination of my groundwater and land?’ Is my family dying around me because we live near nuclear waste contamination?’. I have been personally touched by two families. One a South Carolina family directly and traceably impacted by radioactive contamination at Savannah River Site, and a Georgia family in limbo, questioning the deaths of family member after family member from horrible cancers.

My words and my thoughts are to honor them, the Lindsey family and the Howard family, the concerns of those of them who live, and the memory of those who have passed on to the next life. My words and my thoughts honor all who suffer living in the wake of these radioactive and toxic nuclear waste polluters. Those who breathe the air, drink the water, harvest the leafy greens, and fish the waterways as acts of generational familial survival, not having known or understood in some cases, that they were condemning themselves and their families that they fed and raised on the land and waterways for years, to the ravages of horrible and painful cancers and other adverse health related issues. I honor them with my words today in this place.

Families in this community that are not only dealing with the physical health issues related to contamination, but the emotional health and psychological health issues that they face day in and day out. The stress of struggling financially only to find themselves further burdened by the financial costs related to the family member’s medical bills and hospitalization costs mounting.

The psychological stress of knowing that if you spoke out or spoke up about your concerns related to nuclear waste contamination, you may face reprisals or someone in your family may feel backlash from those who think short-term construction jobs and an increased tax base are more valuable to the community at-large than your family’s health

struggles, because history, time, and personal experience has taught you that as a minority and/or a poor person living in your community you'd be better off being quiet.

¹ John W. Gofman, M.D., Ph.D., *Open Letter of Concern*, May 11, 1999.

The Environment –

People living near toxic and radioactive nuclear waste deal with the adverse health and environmental impacts of that waste as a matter of course. Georgia WAND and its organizational partners work with and in communities as they identify what they themselves consider deficits in information surrounding their health and how their environment is affected.

The communities seek data in order to make informed decisions surrounding the cumulative environmental burdens that they are carrying as a result of living near toxic, radioactive nuclear waste producers and other large polluters.

We find it more than coincidental that as we saw the rise in talk of the so-called nuclear renaissance, there was also a decline in, and in at least one case, the elimination of comprehensive monitoring of the environmental impact and effects of nuclear related pollution and toxic contamination around nuclear facilities. We have experienced that the SRS Environmental Management team has chosen to place politics before human health concerns.

The budget for what had been a robust, comprehensive monitoring program in Georgia around the Savannah River Site had been slashed over what could be no more than personalities or inability to communicate effectively. But that is not as egregious as SRS Environmental Management not fully restoring and adequately funding the robust, comprehensive, and now, real-time environmental monitoring in Georgia when that program is supported by the Washington office of the Department of Energy's Environmental Management office and the Georgia Environmental Protection Division which has submitted comprehensive plans to move forward.

My question is simply; which community and what stakeholders were SRS presenters referring to when they stated that they were concerned about meeting the needs and concerns of the community and their stakeholders?

Q. Who Suffers as a Result of the Indifference to Human Health & Wellbeing Shown by Radioactive and Toxic Nuclear Waste Producers, Major Polluters, and their Enablers?

A. Poor, Minority, and Disenfranchised American People.

Social Justice, Civic, and Cultural Impact –

Promoting self-determination and empowerment through information sharing and legislative action in affected low-income, marginalized, and disenfranchised communities situated near and around radioactive and toxic nuclear waste allows people who have felt at a loss to affect change in their lives, and communities to begin to move in the direction of change.

Communications networks developed by grassroots activists who are affected in some way by having to deal with the cumulative health and environmental pollution burdens created by nuclear waste producers and other polluters, work within their communities to further their goals of social change as they relate to the environmental injustice they face, the elimination of nuclear waste proliferation, and monitoring the effects of these things on health and natural resources.

Sharing information with their fellow citizenry ultimately allows those who are and have been affected to raise their voices to protect themselves, their families, and their communities from large polluters which include radioactive and toxic nuclear waste producers.

People who have been marginalized by society at-large because they are poor and do not feel that they can make a difference in any process are beginning to come together. By seeing that they have common concerns and that their voices can be heard with the right tools, the community will be empowered to act in its own behalf.

We are convinced that by being provided with as much information as possible, communities that have been marginalized by racial, economic, cultural, and social barriers will be able to think critically about these high cumulative environmental pollution burdens and issues as they present themselves.

We are also convinced that if together we can inform an even wider circle of communities who are adversely affected and impacted by these negative environmental and health issues, such as tritium in water, more people will be empowered to generate change in how these polluting entities see them, hear them, and respond to them.

(Tritium is a radioactive hydrogen molecule that is a byproduct of the production of nuclear power generation and once in the atmosphere cannot be recaptured or removed. It is possible to inhale and ingest, it can cross the placenta and cause birth defects, generational birth defects if the fetus is female.)

Because some are small communities who are primarily poor, minority, marginalized, and disenfranchised, large polluters think that they do not matter. We know that they do matter and that armed with information and organization they will be effective in their efforts. We know that the communities that we have referenced are not receiving fair treatment relative to having to deal with these cumulative health and environmental pollution burdens.

We can make sure that there is access to available information that will allow them to speak on their own behalf or to have us available to do so at their request.

The communities we serve benefit by being informed and engaged. They are empowered to act in their own behalf when they see their environment and their health being adversely affected, as it is by the toxic and radioactive nuclear waste produced in this geographic area every day.

I thank you for your time and this opportunity to speak. I bid you peace and blessings.

Dianne Valentin

Citizen of the United States, Board member of Georgia WAND

*“Those who do not move do not notice their chains.”
Rosa Luxemburg*

*“We must scrupulously guard the civil rights and civil liberties of all citizens, whatever their background. We must remember that any oppression, any injustice, any hatred is a wedge designed to attack our civilization.”
Franklin Delano Roosevelt*

Interesting Reading on the Topic of Nuclear Waste and Its Health & Environmental Impact

<http://www.investorideas.com/news/renewable-energy/12281.asp>

<http://www.ieer.org/reports/srs/fullrpt.pdf>

<http://www.ieer.org/campaign/report.pdf>

<http://www.cleanenergy.org/images/files/Code%20Red%20Report%20FINAL.pdf>

<http://www.mnn.com/earth-matters/energy/stories/eu-battles-to-lock-down-radioactive-waste-forever>

<http://uk.reuters.com/article/idUKLDE6A21NY20101103?pageNumber=1>

<http://www.greenpeace.org/eu-unit/press-centre/press-releases2/greenpeace-takes-radioactive-w>

<http://www.epolitix.com/latestnews/article-detail/newsarticle/huhne-defends-nuclear-position/>

A Few Interesting Bits from Southern Alliance for Clean Energy's Code Red Final Report

(a link for the full document: <http://www.cleanenergy.org/images/files/Code%20Red%20Report%20FINAL.pdf>)

- As early as 1944, Enrico Fermi, Noble Prize winner for physics and member of the “Manhattan Project,” which developed the atomic bomb, said, “It is not clear that the public will accept an energy source that produces this much radioactivity and that can be subject to diversion of materials for bombs.” (Kenneth D. Bergeron, *Tritium on Ice: The Dangerous New Alliance of Nuclear Weapons and Nuclear Power*, (Cambridge, MA: MIT Press, 2002), p. 15.)
- Airborne radioactive contaminants pollute nearby crops and vegetation. Farm animals that feed on the crops and vegetation concentrate these contaminants in their meat and milk. Current regulatory guidelines set limits on these emissions. However, the aggregate of radiation epidemiological evidence suggests that current radiation health standards that guide emissions are inadequate to protect public health. Dr. Nussbaum, pp.291-299. Further, since radiation can affect human systems differently, due to people having different radiosensitivities, levels of permitted radioactive discharge that may be considered safe for one citizen or worker may cause a more radiosensitive person to develop cancer, for instance, as mentioned by the European Committee on Radiation Risk, *2003 Recommendations, Health Effects of Ionising Radiation Exposure at Low Doses for Radiation Protection Purposes Regulators' Edition*, (Brussels, Belgium, 2003), p. 24.
- In Georgia, radioactive emissions released into the air and water have been measured in rain, soil, crops, vegetation, river sediment, surface water, groundwater, and in fish and seafood samples. Georgia Environmental Protection Division, *Environmental Radiation and Surveillance Report, 1985-1987 & 1997-1999*.
- Those living closest to a nuclear power plant have a greater risk of exposure, and these are often low-income and minority communities. The people who are actually at the highest risk are the workers at these plants. Regulations allow higher exposures to higher levels of radiation for nuclear workers than to the general public. For instance, the annual dose limit for nuclear workers is 5000 mrem versus exposures to the public limited to 25 mrem/year or up to 100 mrem/year depending on the government agency involved. Institute for Energy and Environmental Research, “Summary of Historical Annual Regulatory Dose Limits for the United States,” *Science for Democratic Action*, vol. 9, no. 1, December 2000, p. 9; U.S. Environmental Protection Agency, *Yucca Mountain Standards: Response to Comments*, June 18, 2001, pp. 4-4 – 4-6. http://www.epa.gov/radiation/yucca/docs/rtrc/yucca_rtc_061801_sec4.pdf; Code of Federal Regulations, Title 10, Energy, Chapter 1, Nuclear Regulatory Commission, Part 20, *Standards for Protection Against Radiation*, pp.326-333.
- Tritium, a radioactive isotope of hydrogen that is produced at all nuclear reactors, acts like water in the body and can pass through the placenta to harm a developing fetus. Hisham Zerriffi, “Tritium: The environmental, health, budgetary and strategic effects of the Department of Energy’s decision to produce tritium,” January 1996, p. 4; Institute for Energy and Environmental Research, “IEER letter to the BEIR VII Committee (Biological Effects of Ionizing Radiation of the National Academy of Sciences),” May 23, 2003.
- The Savannah River is used as a drinking water supply source for many downstream locations, including the City of Savannah Industrial and Domestic (I&D) Water Supply Plant in Port Wentworth and the Beaufort-Jasper Water Treatment Plant (which supplies Hilton Head, SC). Westinghouse Savannah River Company (for U.S. DOE), *Savannah River Site Environmental Report for 2001*. Summary. WSRC-TR-2001-004786, p.3.
- In 2002, the Augusta Radiation Lab tested more than 500 samples from the Savannah River and the City of Savannah’s I&D plant. Most samples complied with the EPA drinking water limit of 20,000 picoCuries/liter. However, some samples taken from SRS outfalls, which discharge tritium from high-level waste tank processing, were tested at more than 35,000 picoCuries/liter. GAEPD, “Radiation Surveillance in Georgia Fact Sheet,” 2002.

- In contrast, prior to 1945, North American rivers measured less than 10 picoCuries of tritium per liter. U.S. NRC, *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*, Final Report, NUREG-1437, May 1996, vol. 1, p. 4-119.
- Additionally, federal funding to properly and independently monitor federal weapons sites such as SRS should also be required for the protection of Georgia's citizens, economy, and environment. GAEPD, "Radiation Surveillance in Georgia Fact Sheet," 2002.
- The 2003 European Committee on Radiation Risk (ECRR) issued an extensive report that criticized the health risk model of the International Commission on Radiological Protection (ICRP), which provides the basis for current radiation risk standards. The report stated that the ICRP seriously underestimated health risks resulting from nuclear energy and nuclear weapons activity. ECRR, *2003 Recommendations*, pp. 179, 182-183; Press Release by European Committee on Radiation Risk, January 29, 2003. <http://www.euradcom.org/2003/presser12003.htm#presspdf>. The ECRR risk model calculated the overall human death toll of all nuclear pollution exposures showing that tens of million of people will die or have died as a result of the radioactive releases up to 1989. Radioactive releases used for this model were from the activities associated with the development of nuclear weapons and subsequent nuclear energy since 1945 through 1989. The model is based on United Nation figures for doses to populations up to 1989. According to the ECRR's risk model, they calculated: 61,600,000 deaths from cancer; 857,000 infant deaths; 1,660,000 fetal deaths; and 10% loss of life quality integrated over all diseases and conditions in those who were exposed over the period of global weapons fallout. In comparison, the ICRP model predicted 1,173,600 deaths from cancer and did not calculate other parameters.
- As the World Health Organization observed, "Overexposure to ionizing radiation can have serious effects, including cancers, birth deformities, and mental anguish." World Health Organization, "Ionizing Radiation Safety," Nov. 8, 2002. <http://www.who.int/peh/Radiation/radindex.htm>
- As radiation increases so does the risk of spontaneous abortion and birth defects such as mental retardation and spina bifida. The risk of heart disease, leukemia, and other diseases also increases. Dr. Rosalie Bertell, *No Immediate Danger: Prognosis for a Radioactive Earth*, (Summertown, TN: Book Publishing Co., 1985), pp. xvi, 21-22, 39, 44, 47; NAS, *BEIR V*, pp. 139, 252-253, 354.
- All nuclear power plants release radioactive contaminants such as Cesium-137, Strontium-90, Tritium, and radioactive Iodine into the air, soil, and water during normal, daily operations. Georgia Power Company, *Off-site Dose Calculation Manual (ODCM) for Georgia Power Company Edwin I. Hatch Nuclear Plant*, Revision 11, December 19, 1996.
- Cesium-137, which collects in muscle tissue, has been found in elevated levels in river sediment more than 80 miles downstream from Georgia's nuclear plants. In their fish consumption guideline publications, South Carolina and Georgia mention that some fish in the Savannah River contain both Cesium-137 and Strontium-90. Georgia Department of Natural Resources. *Guidelines for Eating Fish from Georgia Waters*, 2000 & 2001 Updates, p. 2; South Carolina Department of Health and Environmental Control, *South Carolina Fish Consumption Advisories*, 2000 & 2001.
- Strontium-90 collects in the bones. Non-cancer effects from exposure to Strontium-90 include higher infant mortality rates and more early fetal deaths associated with heart and circulatory defects. ECRR, *2003 Recommendations*, pp. 121-122.